

## REMARKS

Claims 1-29 are currently pending. Claims 1-12 have been amended for clarification purposes and are supported by page 8, line 1, through page 10, line 22, of the specification as filed. New claims 13-29 have been added to enhance the scope of Applicant's coverage and are supported by page 6, line 7, through page 18, line 15, of the specification. It is respectfully submitted that no new matter has been added.

The Patent Office is thanked for its indication of allowable subject matter in claims 5-7. However, Applicant believes that all claims are in condition for allowance.

The Patent Office rejected claims 1-4 and 8-12 under 35 U.S.C. 103(a) as being unpatentable over Chheda, U.S. Patent No. 5,946,621, in view of Petty, U.S. Patent No. 6,308,073.

An aspect of Applicant's invention is that the mobile node calculates a ratio between the number of nodes present within a first region and the number of nodes present within second regions. The first region is the region where the communication zone of the mobile node and a communication zone of the candidate node overlap each other, while the second region is the region where the communication zones do not overlap. The distance to a candidate node adjacent to the mobile node is then estimated based on the calculated ratio.

Chheda discloses a method of optimally updating the neighbor set during soft handoff in a CDMA cellular telephone system, while it does not disclose or suggest the characteristics of Applicant's invention. In the Office Action, the Patent Office asserts that the "first region" is disclosed by Chheda in Figs. 2-4 and in column 9, lines 14-60, the "second region" in Fig. 1, and the number of nodes present within the second region where both communication zones do not overlap (Fig. 1, "base station," "B1"). However, one of ordinary skill in the art would clearly understand that these figures and descriptions do not correspond to the first region where the communication zone of the mobile node and a communication zone of the candidate node overlap each other and "a second region defined by the communication zone of the specified candidate node which does not overlap the communication zone of the mobile node" and would also clearly understand that these figures and descriptions do not correspond to "counting a non-common node number resulting from a subtraction of the common node number from the total

node number of nodes of the neighbor node and the next neighbor node; and estimating a distance between the mobile node and the designated node, on the basis of a ratio between the common node number and the non-common node number.”

Petty discloses that the remote station uses the propagation delays to calculate distances to the respective base stations. That is, the way the remote station estimates the distance to the base stations is not based on the ratio between the number of nodes present within a first region where the communication zone of the mobile node and a communication zone of the candidate node overlap each other, and the number of nodes present within a second region defined by the communication zone of the specified candidate node which does not overlap the communication zone of the mobile node.

Thus, neither Chheda nor Petty discloses or suggests the characteristics of the claimed invention. Accordingly, even if one of ordinary skill in the art would have been able to incorporate the teachings of Petty into Chheda, the combination of Chheda and Petty would not make obvious the claimed invention.

Thus, claims 1-4 and 8-12 are not made obvious by Chheda in view of Petty.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims 1-4 and 8-12 under 35 U.S.C. 103(a) based on Chheda in view of Petty, and to allow all of the pending claims 1-29 as now presented for examination. An early notification of the allowability of claims 1-29 is earnestly solicited.

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

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